UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

909 7590 01/27/2010

PILLSBURY WINTHROP SHAW PITTMAN, LLP
P.O. BOX 10500
MCLEAN, VA 22102

EXAMINER	
ENGLAND, DAVID E	
ART UNIT	PAPER NUMBER
2443	

DATE MAILED: 01/27/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/577,224	05/23/2000	Lundy Lewis	019287-0317296	4214

TITLE OF INVENTION: METHOD AND APPARATUS FOR REACTIVE AND DELIBERATIVE SERVICE LEVEL MANAGEMENT (SLM)

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	$1510	$0	$0	$1510	04/27/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

909 7590 01/27/2010

PILLSBURY WINTHROP SHAW PITTMAN, LLP
P.O. BOX 10500
MCLEAN, VA 22102

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/577,224	05/23/2000	Lundy Lewis	019287-0317296	4214

TITLE OF INVENTION: METHOD AND APPARATUS FOR REACTIVE AND DELIBERATIVE SERVICE LEVEL MANAGEMENT (SLM)

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	$1510	$0	$0	$1510	04/27/2010

EXAMINER	ART UNIT	CLASS-SUBCLASS
ENGLAND, DAVID E	2443	709-224000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

❑ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

❑ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,

(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 _____

2 _____

3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ❑ Individual ❑ Corporation or other private group entity ❑ Government

4a. The following fee(s) are submitted:

❑ Issue Fee

❑ Publication Fee (No small entity discount permitted)

❑ Advance Order - # of Copies _____

4b. Payment of Fee(s): **(Please first reapply any previously paid issue fee shown above)**

❑ A check is enclosed.

❑ Payment by credit card. Form PTO-2038 is attached.

❑ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)

❑ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

❑ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/577,224	05/23/2000	Lundy Lewis	019287-0317296	4214

909 7590 01/27/2010

PILLSBURY WINTHROP SHAW PITTMAN, LLP
P.O. BOX 10500
MCLEAN, VA 22102

EXAMINER	
ENGLAND, DAVID E	
ART UNIT	PAPER NUMBER
2443	

DATE MAILED: 01/27/2010

Determination of Patent Term Extension under 35 U.S.C. 154 (b)
(application filed after June 7, 1995 but prior to May 29, 2000)

The Patent Term Extension is 0 day(s). Any patent to issue from the above-identified application will include an indication of the 0 day extension on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Extension is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability	Application No.	Applicant(s)	
	09/577,224	LEWIS, LUNDY	
	Examiner	Art Unit	
	DAVID E. ENGLAND	2443	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *09/01/2009*.

2. ☒ The allowed claim(s) is/are *1,3,5,6,23-25,27-34,37 and 38*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 09/01/2009
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

/David E. England/
Primary Examiner, Art Unit 2443

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Syed Jafar Ali Reg. No. 58780 on 10/29/2009.

The application has been amended as follows:

1. (Currently Amended) A method performed on a computer for reactive and deliberative service level management, comprising:

providing a service over a network having a plurality of network components that support the service, wherein performance of the service depends on performances of the plurality of network components that support the service, and wherein the service has a state that represents whether the performance of the service meets or exceeds a service level identified in a service level agreement;

extracting a plurality of ~~one or more~~ component parameter values from the plurality of network components that support the service across a plurality of domains of the network using a plurality of sensors respectively coupled to the plurality of network components that support the service;

monitoring the plurality of component parameter values extracted from the plurality of network components that support the service using a .plurality of monitoring agents, wherein

each of the plurality of monitoring agents are configured to monitor a subset of the plurality of extracted component parameter values in a respective one ~~domain~~ of [[a]] the plurality of domains of the network, detect one or more intra-domain events in the respective domain as a function of the component parameter values monitored in the respective domain, and generate one or more intra-domain alarms in the respective domain as a function of the intra- domain events detected in the respective domain;

correlating the intra-domain alarms that each of the plurality of monitoring agents generate ~~generated~~ in each .of the respective ~~plurality of~~ domains of the network using an alarm correlation agent, wherein the alarm correlation agent is configured to correlate the intra-domain alarms generated in each of the respective domains of the network to generate one or more inter-domain alarms across the plurality of domains of the network; and

analyzing causes of the intra-domain alarms generated in each of the respective domains of the network and the inter-domain alarms generated across the plurality of domains of the network using an enterprise management system, wherein the intra-domain alarms and the inter-domain alarms indicate one or more of a degradation or a potential degradation in the performance of the service relative to the service level identified in the service level agreement.

3. (Currently Amended) The method of claim 1, further comprising:

mapping the inter-domain alarms generated across the plurality of domains of the network to a service parameter that represents the state of the service, wherein the service parameter has a value that indicates whether the performance of the service meets or exceeds the service level identified in the service level agreement; and

displaying information relating to ~~the~~ the service, wherein the displayed information includes at least one of availability, faults, configuration, integrity, security, reliability, performance, or the service level associated with the service.

23. (Currently Amended) A method performed on a computer for reactive and deliberative service level management, comprising:

providing a service over a network having a plurality of network components that support the service, wherein performance of the service depends on performances of the plurality of network components that support the service, and wherein the service has a state expressed as a range of numeric values that represent whether the performance of the service meets or exceeds a service level identified in a service level agreement;

extracting a plurality of ~~one or more~~ component parameter values from the plurality of network components that support the service across a plurality of domains of the network using a plurality of sensors respectively coupled to the plurality of network components that support the service;

monitoring the plurality of component parameter values extracted from the plurality of network components that support the service using a plurality of monitoring agents, wherein each of the plurality of monitoring agents are configured to monitor a subset of the plurality of extracted component parameter values in a respective one of the plurality of domains of the network, detect one or more intra-domain events in the respective domain as a function of the ~~monitored~~ subset of the component parameter values monitored in the respective domain,

and generate one or more intra-domain alarms in the respective domain as a function of the ~~detected~~ intra-domain events detected in the respective domain;

correlating the intra-domain alarms that each of ~~generated by~~ the plurality of monitoring agents generate in each of the respective domains of the network using an alarm correlation agent, wherein the alarm correlation agent is configured to correlate the intra-domain alarms generated in each of the respective domains of the network to generate one or more inter-domain alarms across [[a]] the plurality of domains of the network;

mapping the inter-domain alarms generated across the plurality of domains of the network to a service parameter that represents the state of the service, wherein the service parameter has a numeric value in the range of numeric values that indicates whether the performance of the service meets or exceeds the service level identified in the service level agreement; and

monitoring the numeric value of the service parameter using an enterprise management system to provide service level management for the service provided over the network.

27. (Currently Amended) The method of claim 23, further comprising:

determining that the numeric value of the service parameter indicates one or more of a degradation, a potential degradation, or an imminent degradation in the performance of the service relative to the service level identified in the service level agreement; and

issuing one or more instructions that effect a change to one or more of the component parameter values in response to determining that the numeric value of the service parameter

indicates any of the ~~the~~ degradation, the potential degradation, or the imminent degradation in the performance of the service relative to the service level identified in the service level agreement, wherein the one or more instructions autonomously cause the numeric value of the service parameter to meet or exceed the service level identified in the service level agreement.

37. (Currently Amended) A hardware system for reactive and deliberative service level management, comprising:

a network having a plurality of network components that support a service provided over the network, wherein performance of the service depends upon performances of the plurality of network components that support the service, and wherein the service has a state. that represents whether the performance of the service meets or exceeds a service level " identified in a service level agreement;

a plurality of sensors respectively coupled to the plurality of network components that support the service, wherein the plurality of sensors are configured to extract a plurality of ~~one or more~~ component parameter values from the plurality of network components that support the service across a plurality of domains of the network;

a plurality of monitoring agents communicatively coupled to the plurality of sensors, wherein each of the plurality of monitoring agents are configured to:

monitor a subset of plurality of the extracted component parameter values in a respective one ~~domain~~ of [[a]] the plurality of domains of the network;

detect one or more intra-domain events in the respective domain as a function of the component parameter values monitored in the respective domain; and

generate one or more intra-domain alarms in the respective domain as a function of the intra-domain events detected in the respective domain;

an alarm correlation agent configured to correlate the intra-domain alarms that each of the plurality of monitoring agents generate ~~generated~~ in each of the respective ~~plurality of~~ domains of the network to generate one or more inter-domain alarms across the plurality of domains of the network; and

an enterprise management system configured to analyze causes of the intra-domain alarms generated in each of the respective domains of the network and the inter-domain alarms generated across the plurality of domains of the network, wherein the intra-domain alarms and the inter-domain alarms indicate one or more of a degradation or a potential degradation in the performance of the service relative to the service level identified in the service level agreement.

38. (Currently Amended) A hardware system for reactive and deliberative service level management, comprising:

a network having a plurality of network components that support a service provided over the network, wherein performance of the service depends upon performances of the plurality of network components that support the service, and wherein the service has a state expressed as a range of numeric values that represent whether the performance of the service meets or exceeds a service level identified in a service level agreement;

a plurality of sensors respectively coupled to the plurality of network components that support the service, wherein the plurality of sensors are configured to extract a plurality of ~~one or~~

~~more~~ component parameter values from the plurality of network components that support the service across a plurality of domains of the network;

a plurality of monitoring agents communicatively coupled to the plurality of sensors, wherein the plurality of monitoring agents are configured to:

monitor a subset of the plurality of extracted component parameter values in a respective one of the plurality of domains of the network;

detect one or more intra-domain events in the respective domain as a function of the ~~monitored~~ subset of the component parameter values monitored in the respective domain; and

generate one or more intra-domain alarms in the respective domain as a function of the ~~detected~~ intra-domain events detected in the respective domain;

an alarm correlation agent configured to correlate the intra-domain alarms that each of ~~generated by~~ the plurality of monitoring agents generate in each of the respective domains of the network to generate one or more inter-domain alarms across [[a]] the plurality of domains of the network; and

an enterprise management system configured to:

map the inter-domain alarms generated across the plurality of domains of the network to a service parameter that represents the state of the service, wherein the service parameter has a numeric value in the range of numeric values that indicates whether the performance of the service meets or exceeds the service level identified in the service level agreement; and

monitor the numeric value of the service parameter to provide service level management for the service provided over the network.

2. The following is an examiner's statement of reasons for allowance: (Maccabee et al. 6108700, Roytman et al. 6356282 and Madhat et al. 6314103), does not teach nor suggest in detail, a method or system for reactive and deliberative service level management, comprising: providing a service over a network having a plurality of network components that support the service, wherein performance of the service depends on performances of the plurality of network components that support the service, and wherein the service has a state that represents whether the performance of the service meets or exceeds a service level identified in a service level agreement; extracting a plurality of component parameter values from the plurality of network components that support the service across a plurality of domains of the network using a plurality of sensors respectively coupled to the plurality of network components that support the service; monitoring the plurality of component parameter values extracted from the plurality of network components that support the service using a .plurality of monitoring agents, wherein each of the plurality of monitoring agents are configured to monitor a subset of the plurality of extracted component parameter values in a respective one of the plurality of domains of the network, detect one or more intra-domain events in the respective domain as a function of the component parameter values monitored in the respective domain, and generate one or more intra-domain alarms in the respective domain as a function of the intra- domain events detected in the respective domain; correlating the intra-domain alarms that each of the plurality of monitoring agents generate in each .of the respective domains of the network using an alarm correlation agent, wherein the alarm correlation agent is configured to correlate the intra-domain alarms generated in each of the respective domains of the network to generate one or more inter-domain

alarms across the plurality of domains of the network; and analyzing causes of the intra-domain alarms generated in each of the respective domains of the network and the inter-domain alarms generated across the plurality of domains of the network using an enterprise management system, wherein the intra-domain alarms and the inter-domain alarms indicate one or more of a degradation or a potential degradation in the performance of the service relative to the service level identified in the service level agreement," as argued by the Applicant (see Specification as of 09/26/2000, pages 28, 40-44, 47 – 57, 60 - 81; and Drawings dated 05/23/2000, Figures 10 – 20 and 27 – 34 of Applicant's enabling portions of the specification and drawings).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID E. ENGLAND whose telephone number is (571)272-3912. The examiner can normally be reached on Mon-Thur, 7:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tonia Dollinger can be reached on 571-272-4170. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

David E. England
Primary Examiner
Art Unit 2443

/David E. England/
Primary Examiner, Art Unit 2443